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Faradism x x x x

Gynæcological Society of Boston

200th Regular Meeting, March 14, 1889.

The President, W. Symington Brown, M.D.,
in the Chair.





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PATHOLOGICAL SPECIMENS.

DR. F. L. BURT exhibited a *fibroid of the uterus* which he had removed from an unmarried woman about 30 years old. It filled the vagina and was attached by a small pedicle near the internal os uteri. The tumor, the size of an orange, was removed with considerable difficulty from its attachment, and when free it could be removed from the vagina only by the aid of the fingers in the rectum. The hæmorrhage, which had been considerable, gave no more trouble.

An interesting paper was read by AUGUSTUS P. CLARKE, M.D., entitled

FARADISM IN THE PRACTICE OF GYNÆCOLOGY.

In these days of brilliant theories and magnificent possibilities, he said, much is claimed in regard to the value of the galvanic current in the treatment of certain diseases of women. Results far in advance of anything that a generation ago the most enthusiastic advocates had even hoped for, have been achieved by Apostoli and his followers. The elaboration of this system of electro-therapeutics has been accomplished only by the expenditure of a vast deal of money and thought. Instruments and appliances the most

ingenious, have been devised to meet the various phases and indications of what may be termed a normal departure, suggesting the adoption of remedial measures. The work in this field has many attractions, and is capable of satisfying the longings of natures the most ambitious, and of yielding a feeling of complacency, that can only be rivaled or reached by the eclat, that is sure to follow successful cases of laparotomy and ovariectomy. Indeed, the definition of the term electricity or electro-therapeutics of late in some quarters has become almost identical with galvanism. The display by the development of such special appliances are led to further inquiries in regard to the treatment of cases of a gynæcological class by the application of the faradic current. It is to be noted that the results obtained by the employment of this form of electricity have been most gratifying and give promise of the attainment of results which, without the employment of this current, could not be secured. Apostoli's method of treatment of chronic metritis and endometritis comprises an intrauterine chemical galvano-cauterization to be carried out in a strictly antiseptic manner. The sittings, though short, must be frequent if they are to be successful. The application of this method necessitates the use of special rooms and conveniences, which only a few among the larger operators are likely to have. Any departure from the prescribed plan is almost certain to be attended with much danger. When we consider the necessity of repeating frequently the sittings before we can even hope for success, we are forced to conclude that this plan of treatment will never become very popular. Operators, who have special conveniences and who have reason to hope for successful issue of the cases, will always prefer treatment by laparotomy or other surgical methods in which

the lives of patients in most instances are to be jeopardized but once, than repeatedly to incur risks by the method of chemical galvano-cauterization. In the employment of the faradic current we act upon the superficial blood-vessels, we modify the nutrition of the parts, we hasten absorption of extraneous matter. All this can be done without incurring that extreme hazard which usually accompanies methods by galvanization.

The faradic current has a markedly sedative effect upon the parts, and when judiciously and intelligently applied the patient often feels a sense of relief, and will return for further help. Even in cases in which marked inflammatory processes are present, the faradic current may be resorted to with much benefit. In a paper presented to the Association of Obstetricians and Gynecologists, Washington, D. C., September, 1888, I reported several cases of salpingitis, in which the treatment supplemented by faradization was productive of much benefit. Cases in which the abdominal walls were soft and unusually relaxed from want of tone, or in which there was undue distention induced by various lesions were greatly relieved by the employment of the faradic current. The following cases are appended to show the more favorable results of the treatment.

Case 1.—Mrs. K., æt. 38 years, mother of one child, 13 years old, notified me July, 1888, that she expected to be confined in September following. I saw the patient July 21, and made careful examination, and found that she was not pregnant. Her menses had appeared at irregular intervals, but the distension of the abdomen was so great that she supposed herself pregnant, and had made elaborate preparation for confinement. The bowels were regular, she had fair appetite, and the urine appeared normal. There

was some pain and tenderness over each ovary. The circumference of the abdomen was greater than normal and the patient fancied she felt fetal movement. The uterus was soft and relaxed and was anteverted, but not to such degree as to cause vesical disturbance. I began with the use of the faradic current with slow interruptions over the abdomen and the cervix, while over the ovaries on the outside frequent interruptions of the current were employed. Occasionally an intra-uterine electrode was employed while the other pole (usually the negative) was connected with the wire brush. The patient quickly improved under this method of treatment. Abdominal distension subsided, and the pain and discomfort in the ovaries disappeared. The sittings were continued at intervals of three days, and each occupied from five to ten minutes, and covered a period from August 14, to November 17, 1888, since which date she has been in good health.

Case 2.—Mrs. O., mother of three children, the oldest 12 years, the youngest 4 years. This patient had been an invalid for several years. There had been an old perineal laceration though no prolapse nor any vesical disturbance. The cervix was thickened and indurated. There was no leucorrhœal discharge nor any history of an acute inflammatory process. The patient had worn several kinds of pessaries, but said that she had never experienced any special benefit from their use. The principal trouble complained of when she came under my care, was pain in the back and left ovarian region, and at irregular intervals attacks of severe pain in the head, attended with symptoms which showed that hysteria was an important element in the disease. As this patient had been under the usual routine of several able practitioners, I advised discontinu-

ance of the use of all supporters and other means of treatment heretofore received, and began with employment of the faradic current. The treatment was commenced in the early part of August and was continued at intervals of three and four times a week, each application of the current lasting eight minutes. Over the more painful points the current with frequent interruptions was used. Along the muscles of the back and areas of great sensitiveness the current with slower interruption was selected. The negative pole with an intra-uterine electrode was applied. After the third application of the current the patient showed signs of improvement. The treatment was persevered in regularly for two months. After that the séances were continued at longer intervals. The treatment was supplemented with an aloetic purge and followed by the daily use of gentle aperients. The patient, though not fully restored to health, so far recovered as to be able to attend to her domestic affairs, and to go out and enjoy many of the comforts and pleasures of life. It is highly probable that eventually an operation for the restoration of the perineum will have to be undertaken.

Case 3.—Mrs. S., æt. 26 years, married five years, miscarried after the third month of pregnancy. The placenta was retained upwards of sixty days. When I was called there was flowing and a foetid discharge. I succeeded in effecting an entire removal of the placenta. The patient after that rapidly improved, but was anæmic, and the tissues were soft and relaxed. After four months the patient returned to me complaining of vesical disturbances. Vaginal examination showed that the uterus was retroflexed, and that there was a well defined cystocele. The uterus was restored and the patient was directed to urinate at short intervals, and to

avoid if possible the occurrence of over-distension of the bladder. After the lapse of six months, there being still considerable vesical disturbance, faradization was begun. Slow interruptions of the current were employed in the cul-de-sac on each side and over the abdomen. The séances were made every third day for four weeks and then at intervals of once a week. After the second month the patient considered herself to be cured. Recent examination showed that, though the patient had received no treatment for nearly six months, the cystocele had not returned, and the retroflexion was of no consequence. The patient is now strong and in good health.

Case 4.—Mrs. R., aged 38 years, mother of two children, the youngest of whom was 15 years. After the last confinement she suffered very much from catarrhal endocervicitis, but the menses have appeared regularly. Vaginal examination showed that there had been a multiple laceration of the cervix, but the cicatrization was fully established. The cervical canal was preternaturally sensitive. The perineum had been lacerated, but nature had partially restored the rent. The uterus was retroverted. The principle trouble complained of when the patient came under my care eight months ago was pain in the ovaries. These could be distinctly felt and were not displaced. There was pain also in the back, from the lower dorsal vertebræ to the coccyx. The tendon reflex was markedly increased. The patient suffered from frequent attacks of "blinding headache." The urine was heavily loaded with urates. Under ether I curetted thoroughly the cervical canal. The uterus, after being restored, was kept in place by vaginal tampons. Butcher's meat was interdicted, and the bowels were kept open by gentle aperients. The patient improved under the treatment. After the lapse of three months

slow interruptions of the faradic current were tried every third day for five weeks, and for the next four weeks once in every four days. Subsequently once in two weeks. The treatment by faradization occupied upwards of four months, and its good effect was shown by the disappearance of the increased tendon reflex and the return of strength and appetite. All pain and tenderness vanished, and the local lesions now give no trouble whatever.

Case 5.—Mrs. S., aged 38 years, mother of one child 4 years old. The patient recovered well from confinement and was in good health until January, 1888, when she sustained injuries from being thrown from a carriage. She suffered much at the time, was confined to bed. There was severe pain in lower part of back and in the bladder. She suffered more or less in micturition. There was no uterine displacement, but a sharp pain and soreness in the right ovary was complained of. After two months of rest and treatment the pain and soreness disappeared, except that in the ovary. The ovary of that side must have been affected by the shock and concussion sustained. In March following, faradism was tried. The positive pole was applied over the abdomen, and more particularly in the right inguinal region and in the right cul-de-sac. The other pole was applied along the lumbar and sacral portions of the spine. The wire brush on the outside was also used. The patient showed improvement after the third séance. The sittings were continued at intervals of two and three days until April 15th. Since then no further trouble has been experienced from the ovaritis, and the parts have resumed their normal functions.

Case 6.—Mrs. A., æt. 41 years, mother of three children, the youngest of whom was 9 years old. For the past five years the patient had had sev-

eral attacks of rheumatism, necessitating at the time of each attack confinement to bed. When I was called she was recovering from one of these attacks which had continued from Sept. 10th to Oct. 24th. There was swelling of both knees and ankle joints, but the greatest amount of suffering appeared to be centered in the pelvic organs, especially in the uterus and its adnexa. Mineral waters and saline laxatives were employed. The use of meats and nitrogenous food was discontinued, and milk and light articles of diet were prescribed. The patient rapidly improved under the change of treatment and on Nov. 1st was free from the rheumatic affection, except weakness and discomfort in the back and genito-urinary organs. The patient was unable to walk without the aid of a cane or crutches. There was uterine dyskinesia, though no marked flexion of that organ could be made out. There was a sensible diminution of the tendon reflex and almost an entire absence of the ankle clonus. At this time treatment by faradization was begun, and continued until Dec. 12th, when the pain was overcome and the patient able to walk without artificial help. The reflexes have returned to their normal condition. The current with slow interruption was applied every second day.

Case 7.—Mrs. L., æt. 22 years, while walking on a country road during the evening of Jan. 15, 1888, sustained a fall over an embankment. At the time of the accident uterine hæmorrhage occurred. The patient is said to have complained bitterly of pain in the right hip and back. She was under treatment for six weeks, at the end of which time she had so far recovered as to be able to return to her home. The patient came under my care on the 10th of the following May. Vaginal examination showed that there was a marked ante flexion. There was vesical disturb-

ance and considerable difficulty experienced in walking or in attempting to make any considerable exertion. A Hodge pessary gave only partial relief, but was worn until August 3d, when I removed it permanently, and began with faradic current with slow interruptions. Each séance lasted ten minutes and was repeated every third and fourth day. After the sixth application the uterine tissue appeared firmer and the organ itself on being restored retained its position much longer than before. The treatment was persevered in until October 8th, when the patient regarded herself as well as usual. Vaginal examination showed that the uterine flexion existed in a minor degree only.

In reviewing the histories and symptoms of these cases we find inflammation attended with more or less pain, and some form of neurosis was a prominent feature, and that the application of the faradic current was productive of much benefit. In Case 1, the current with slow interruptions had the effect of stimulating the relaxed muscular tissues, and of giving tone and vigor to the parts. In Case 2, the pain and reflex symptoms were relieved, and the strength and health improved, and should an operation for the restoration of the perineum be deemed advisable, the patient will be in much better condition to insure recovery. Case 3 shows the beneficial effects of the current with slow interruptions. A cystocele induced by overdistension of the bladder in a subject of weakened and relaxed muscular tissue was at length fully overcome by prolonged application of the current. Case 4 shows also benefit derived from the same current in controlling the tendon reflex and nervous excitability. Case 5 illustrates the therapeutical advantage of faradism when the wire brush is used. In the treatment of inflammation supervening shock and con-

cussion of the ovary. Case 6 further shows the help to be derived from continued application of the faradic current in restoring reflexes to the normal condition and in exciting healthy action in the genito-urinary organs. The last case in some respects, like Case 3, exemplifies the tonic effect that may be obtained by the employment of the same current on relaxed uterine tissues.

I am in possession of notes and records of some thirty other gynecological cases in which faradization was resorted to with favorable results. In twelve of these the application was made to overcome pain and nervous disturbance arising from various lesions requiring operative interference, viz. : six for pyo-salpinx and salpingitis, four for lacerations of the perineum and of the cervix, one for uterine polypus and one for urethral vascular growths ; and in nine to overcome pain and nervous phenomena due to functional disturbance, viz. : three for subinvolution, four for leucorrhœal and gonorrhœal pain, one for neuralgia of the ovary, and one menorrhagia. In two the application was made on account of amenorrhœa, in four for cystitis, and in three for hysteria and loss of power in arm and leg. These cases I report not with the view of establishing a claim for originality in treatment or for the purpose of setting aside other well-tried and settled methods, but in recognition of the fact that we have in this form of electricity for properly selected cases, after other means have failed, an agent capable of yielding most gratifying results.

DR. W. G. WHEELER said that he was glad to see a return to faradization. A good degree of success had been attained by Dr. Cutter by his method of treatment. He had in one case used Cutter's battery in treating a large tumor reaching above the umbilicus. The shock produced is profound, and it is necessary to etherize the pa-

tient. One needle was introduced through the rectum and the other through the abdominal wall. The current passed for seven minutes. An abscess was produced, which discharged for several months. The operation was performed a year and a half ago, and the tumor is now quite small and the sinus is closed.

DR. A. L. NORRIS has found better results from the use of the interrupted current. For the last eleven years he has used a battery made by Kidder, of New York, on a large number of cases with success. He has had good results in the treatment of amenorrhœa by faradization. For this, one pole is usually placed on the nape of the neck and the wire brush is applied over the loins, but sometimes he uses an intrauterine electrode.

DR. G. W. JONES: I think that Dr. Clarke should be complimented on the good results he has obtained from faradization. If we could all get such results we would be highly gratified, and not without reason; for the remedy is at once so simple and easy of application. For my part, however, I have not been able to obtain such encouragement. I have been using faradism for more than sixteen years in just such cases as Dr. Clarke has spoken of and, although I have sometimes thought improvement resulted, there was not such a decided benefit as to make me feel hopeful of very brilliant success. I say this of the faradic current when used exclusively. I have no doubt but that a judicious use of the faradic current may be of some benefit in many cases of leucorrhœa and simple metritis and ovaritis and neuralgia of the uterus and ovaries. Also in some cases of hysteria due to pain in the locality of the generative organs, it might have a moral if not a physical influence; but when the various disturbances of the female reproductive system are due to morbid tissue changes in those

organs, I believe that faradism will have little if any influence on those morbid conditions. In such cases galvanism is going to do the most valuable service. We do not want to stimulate cell-growth, but rather retard or destroy such cell proliferation, and in the galvanic current we have an agent that will do that in the best manner, if it is used in a careful way. For all ordinary purposes, an apparatus consisting of 24 to 36 cells of McIntosh or Wait & Bartlett make will be sufficient to do the work of a general practitioner.

One of the greatest drawbacks to the use of galvanism to my mind, is the high cost of a good galvanometer to measure the current used. A reliable instrument costs so much that few general practitioners are willing to afford the outlay when they so seldom use it, and I believe if we are to use an agent so potent for good or evil, that the dose administered should be as accurately measured as strichnine or morphine. If we expect so get exact results from our practice, we ought to know exactly how those results are obtained in order to have them of practical value.

DR. F. L. BURT : There seems to be no doubt that all are not equally successful in their results from the use of electricity. The enthusiast, who thinks it the only agent of good, is no doubt over sanguine and probably reports too favorably. He who decries it, on the other hand, has doubtless not taken the trouble to investigate properly. I am not so enthusiastic as to use this agent to the utter exclusion and denial of everything else, but I do know that it is of value and I have frequently been gratified at my results. Failure is very frequently due to a lack of knowledge in the application on the part of the physician, and a very frequent cause of failure is due to the use of poor batteries. A good battery is a necessity.

Many of those on the market are good toys, but are almost useless in the treatment of gynæcological cases. Two coils, coarse and fine wire, with a slow and a rapid vibrator, are necessary. I have used the faradic current with much satisfaction as an external application for its soothing effects, to ease pain, to stimulate muscles to contract, to test reactions in certain nervous affections, to increase peristaltic action, etc. In gynæcological cases it has been of great service in some cases of amenorrhœa, to cause more regular menstruation, to ease menstrual pains and to relieve general pelvic pain. In cases of relaxed tissues or prolapse of the pelvic organs, there is a slow but beneficial result. The method of application and kind of electrode used to have much to do with the success in any given case. The reader has said very little about the method of application, but although it is quite important perhaps the profession is sufficiently informed in respect to it.

In the early part of his paper the reader gave me the impression that he laid a great stress on faradism and little if any on galvanism. Faradism has been used more commonly in the past, and I think with better results, but this could only have been because there was less knowledge of the use of galvanism. This is not so to-day. Without speaking at all disparagingly of either variety, I think that no one, who has thoroughly tried both kinds, will hesitate for a moment to give the preference to galvanism as the most generally useful electrical current. There is no longer doubt of its value in treating fibroid tumors. In some cases the results are excellent, yet it is equally true that there are cases which cannot be benefited by its use, and surgery must come in for a certain number of cases. The symptoms are usually relieved or cured, dis-

charges are lessened or entirely stopped and hemorrhage is checked. Galvanism will stop hemorrhage which is due to the presence of a fibroid or other intra-uterine causes, but is of no use when due to pelvic troubles external to the uterus. There is a class of cases of fibroid associated with diseased tubes or displaced and adherent ovaries, which is not benefited by electricity. These need surgery. I reported a typical case of this kind in the *Boston Medical and Surgical Journal* of January 24, 1889. Inflammatory pelvic deposits are absorbed by the use of galvanism. On the other hand, a point of considerable importance which I have mentioned before, the cases, diagnosticated as pelvic cellulitis and which are frequently pyo-salpinx, are treated by galvanism and not benefited. This is due, according to my experience, to the fact of the presence of pus. In other words, pyo-salpinx or pelvic abscess is not relieved by galvanism, and this fact may aid in the diagnosis of the case. I have reported a typical case of each kind, for which see same reference as above. In the treatment of the disorders of menstruation and of diseases of the endometrium, I have thus far had decidedly beneficial results. Some cases in which there is more or less constant pain in the region of the ovaries in which the diagnosis varies, have been cured by the use of galvanism. There are also many conditions in which galvanism is useful, which I will not take your time to speak about; and still others which I am as yet investigating and hope to make a report in the future. Electricity, galvanism especially, should not be used by persons who are ignorant of it as a therapeutic agent, and the physician who is to employ it should be well versed in respect to its actions, and should know thoroughly the construction of the machine which he is about to employ.

DR. W. S. BROWN said that the cases detailed by the reader were very interesting, and of practical value. He believed that the primary faradic current exerted a remarkably soothing influence on excitable patients, under which they sometimes fell asleep during its administration. As he had several times related to this society, he was present when Dr. E. Cutter (now of New York) made his first attempt at electrolysis in Melrose, Mass. Dr. Kimball, of Lowell, also assisted, but, on account of the needles used being too slim, we did not succeed in penetrating the fibroid tumor. He was still in doubt whether the success in subsequent operations was due to electrolysis or to shock. Like all similar operations, it is not free from danger; and, in many respects, differs from Apostoli's.

DR. A. P. CLARKE: In closing the discussion the speaker said that he should offer only a few remarks. In the first place he would state that he did not wish to be understood as holding to the view that the faradic can be substituted for the galvanic current. It is true, he said, that he had referred to the achievements of Apostoli and his followers, but that treatment comprises chemical galvano-cauterization. In order to insure success when adopting Apostoli's method, instruments of peculiar construction must be employed, and their application must always be made under the strictest antiseptic precautions. For this reason he believed that method of treating certain morbid lesions would never be popular, but other methods would be resorted to to accomplish the same results. The cases that are benefited by faradism are often radically different from those that may be benefited by galvanism, the former can be treated with comfort and safety to the patient and with satisfaction to the physician. The report of the 37 cases as given in his

paper, as well as of those that he had already published, the speaker remarked, attest in some measure the benefits that may be secured by faradism. Something has been said in regard to the employment of the faradic and the galvanic current in the same case; the moral effect of such treatment may occasionally be of benefit, but the nature of lesions requiring the use of the galvanic and faradic current often being so different, he very much doubted whether, in the majority of cases, any permanent improvement resulted by their admixture. The speaker made mention of the helpful effects of the faradic current with slow interruptions in cases of weakened and relaxed muscular tissue; he referred particularly to Case No. 3 in the paper, in which a cystocele induced by overdistension of the bladder was cured by prolonged applications of that current. For overcoming pain and nervous excitability, the faradic current with frequent interruption was employed. He also referred to the results mentioned in the discussion by Dr. Burt, that were obtained by a fine and by a coarse coil of wire in his battery. The distinguishing features of these respective currents are important considerations. By keeping this principle in view the operator will often be successful with his cases; by neglect, however, utter failure may result. Reference has been made to Dr. E. Cutter's method of electrolysis, though a consideration of that method of operating is hardly germane to the subject now before the Society, the speaker would venture to remark that he had been favored with an opportunity of seeing some of the earlier cases of fibroids treated by that distinguished operator. He believed that Dr. Cutter should have the honor of being the originator of the treatment of uterine fibroids by electrolysis, and that he is deserving of great credit for the good work he so early accomplished.

